Monarch Conservation Database Web Application Tutorial for Conservation Professionals

July 24th, 2018

Contact us any time at:
FW3_monarchconservation@fws.gov

Visit us any time at:
https://www.fws.gov/savethemonarch/mcd.html

- Hello and welcome to the Monarch Conservation Database Web Application basic tutorial. My name is Steve Choy and I am coordinating the development of the Monarch Conservation Database, or MCD for short. This tutorial will walk users through the process of registering for access to the MCD web application, creating conservation plans records, and creating conservation effort records.
- Note that this presentation is geared towards conservation professionals, or perhaps more specifically those with conservation efforts that are associated with or guided by a conservation plan. Our applicable policies define a plan as a conservation agreement, conservation plan, management plan, or similar document approved by Federal agencies, State and local governments, Tribal governments, businesses, organizations or individuals.
- If your effort is not associated with or being guided by such a document, I invite you to download the "Backyard Garden" version of the tutorial which is available on the MCD website.

Resources

- Required Fields Workflow Diagram
  - Assist users in determining what fields will be required to complete records based on
    - Whether or not the efforts are associated with a plan
    - The implementation status of the effort

- There are a few key resources aside from this presentation that will facilitate the process of data entry. All of these materials are available on the MCD website.
- The first resource is the Required Fields Work Flow Diagram. This document will help you determine what fields will be required based on the implementation status of your effort.

Resources

- MCD Web Application User Guide
  - Background information
    - Purpose of MCD
    - How data will be used
  - Detailed step-by-step instructions for entering data
    - Screen shots
    - Field types and definitions
    - Required fields
    - Bulk uploading
  - Supporting information
    - Key terms and definitions
    - Drop down menu libraries
    - Activities table

- The next resource is the MCD Web Application User Guide. This document has background information on the MCD, detailed step-by-step instructions for data entry, and important supporting information such as key definitions.

Resources

- MCD Web Application Quick Reference
  - Field types definitions
  - Required fields
  - Drop down menu libraries
  - Activities tables
  - Definitions

- Finally, there is the MCD Quick Reference. The Quick Reference is a condensed version of the User Guide and contains definitions of fields and key terms.

Getting Started

- Step 1: Register for access to the web application
- Step 2: Web application familiarization
- Step 3: Create Records using the Single Record Editor or Bulk Upload?
- Step 4: What information is required?
- Step 5: Creating plan records (if applicable)
- Step 6: Creating effort records

- There are essentially 6 steps to entering data:
  1. Registering for access to the MCD web application
  2. Familiarizing yourself with the layout and features of the web application
  3. Deciding what method of data entry to use
  4. Figuring out what information will be required
  5. Creating plan records (again, if applicable), and
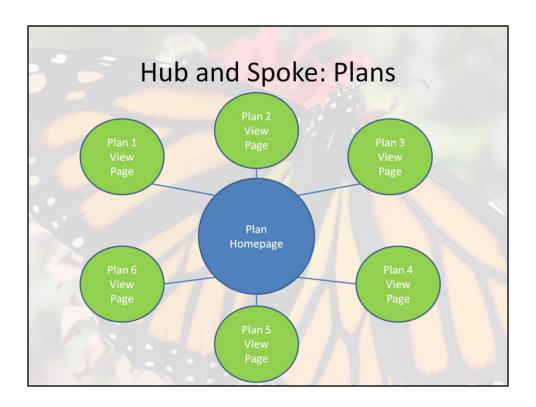 6. Creating effort records

Step 1: Register

- Email FW3_monarchconservation@fws.gov
  - Provide your:
    - Name
    - Organization
    - Email address
    - Phone number (optional)
- You will receive an email back with
  - A link to the FWS ECOS webpage
  - A temporary password
- Upon your initial login
  - Accept the disclaimers
  - Change your password

- In order to register for access to the web application, send an email to FW3_monarchconservation@fws.gov and provide your
    - Name
    - Organization
    - Email address
    - Phone number (which is optional – it gives us another way to contact you), and
- Before you submit your information, you may want to read through the disclaimers provided on the MCD website that explain what we do with your data and your privacy rights.
- Also note that you no longer need to tell us your desired role when registering. All users will be given the Data Editor role and you may assign any registered web application user to be a Data Coordinator for your effort if you wish.
- Once you have been approved, you will get an email from the Fish and Wildlife Service's Environmental Conservation Online System (or ECOS) Helpdesk with a link to logon to the ECOS public homepage, a user name (which will be your email address), and temporary password.
- You will have 24 hours to logon to ECOS, access your profile, and change your temporary password. If more than 24 hours have passed, you'll need to email FW3_monarchconservation@fws.gov again to let us know that your temporary password has expired.
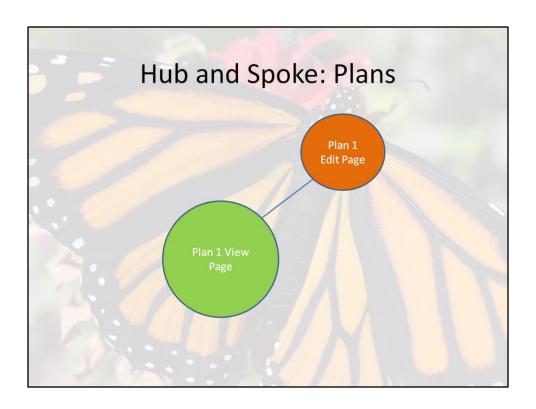
- Upon your initial login, you will be prompted to officially acknowledge that you have read and understood the disclaimers.
- After you have successfully changed your password, look for a link to the MCD web application on the ECOS homepage.

Step 2: Familiarize

- The MCD Web Application uses a "hub and spoke" design where the hub provides general information and spokes are used to access and edit more detailed information
  - Homepage provides general information and access to all plan and effort records
  - View page provides detailed information for individual plan and effort records
  - Edit page allows the user to edit the details of individual plan and effort records

- When you have access to the web application, you might want to click around to familiarize yourself with the layout and features.
- The MCD web application uses a hub and spoke design where the hub provides general information and the spokes are used to access and edit more detailed information.
- There are 3 general types of pages in the MCD web application:
    - The Homepage provides general information and access to all plan records in the database and effort records that are associated with your account.
    - The View page provides detailed information for all individual plan records in the database and efforts associated with your account.
    - The Edit page allows you to edit the details of individual plan and effort records associated with your account.

- This slide shows the hub and spoke model diagrammatically. You can see how the Plan Homepage sits in the middle as the hub, and you can access the View page for individual plans, or the spokes, through the Plan Homepage.
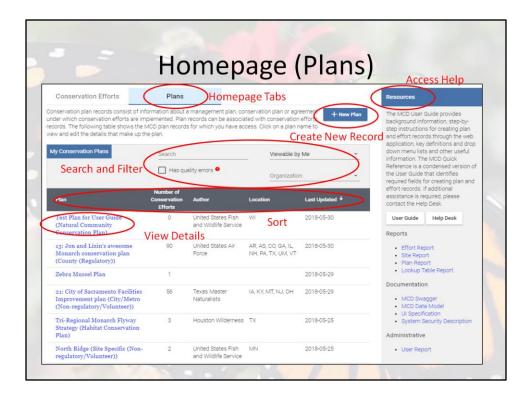
Hub and Spoke: Plans

- If we were to go a level higher, you can see if you were to access the View page of an individual plan, the View page now becomes the hub and the Edit page for the plan is the new spoke.
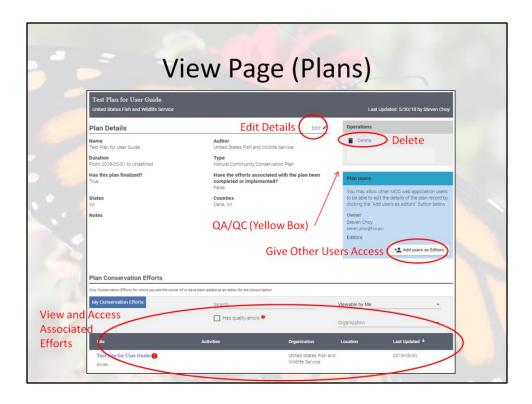
Before We Begin

- All plans and efforts displayed in the screen shots are examples and for illustrative purposes only!

- A quick note before we start looking at screen grabs: the plans and efforts you'll see are examples and for illustrative purposes only.

- This is what the Plan Homepage looks like.
- You can tell that you are on the Plan Homepage and not the Conservation Efforts Homepage as the Plans Homepage tab is highlighted.
- Note that on the Plan Homepage, you can view the details of any plan in the database. On the Conservation Efforts Homepage, only database records associated with your account are shown. In other words, only effort records that you have created or for which you have been included as an editor, collaborator, or Data Coordinator will be visible.
- From the Plans Homepage, you can:
    - Create a new plan record
    - Access help documents and features such as the resources I mentioned earlier
    - Search for specific plans by using the search box, or filter for plans that meet certain accessibility, data quality, or author criteria
    - Sort plans by the plan name, number of conservation efforts associated with the plan, plan author, plan location, and date last updated
    - You can also click on individual plans to access the View page for that plan and see more detailed information

- When you click on an individual plan name, you are taken to the View page where you can view the details of the plan and you can also
  - Edit those details by clicking on the edit button
  - Delete the plan record
  - Identify any data quality issues such as missing fields through the yellow QA/QC box (which is not shown in this screen grab)
  - Add other users as editors which will allow those users to view and edit the record,
  - And view and access information about efforts that are associated with the plan
  - Note that these features are only accessible if you are the owner or editor of the plan. If you are not the owner or editor of the plan, you may only view the details, and you will only be able to see efforts that are associated with your account.

- If we click on the "Edit" button from the View page, you can see that we can now edit and interact with all of the fields
- There are a few types of data entry fields to be aware of:
    - There are open text boxes
    - Drop down menus, some of which will be multiple check box drop down menus
    - Radio buttons
    - And drag and drop boxes
- Additionally, red asterisks mark required fields

Step 3: Single Record Editor vs Bulk Upload

Number of Efforts	Are the efforts associated with a plan?	Step 1	Step 2
1 or a few	No	Enter **effort** information using single record editor	N/A
1 or a few	Yes	Enter **plan** information using single record editor	Enter **effort** information using single record editor and associated effort(s) with plan
Many	No	Enter **effort** information using bulk upload feature	N/A
Many	Yes	Enter **plan** information using single record editor	Enter **effort** information using bulk upload feature and associate effort(s) with plan in templates or through single record editor

- Now that we have covered the basic format of the web application, we would next recommend thinking about which method of data entry works best for you: one record at a time through the single record editor, or many at a time using the bulk upload.
- If you have one or a few efforts, the single record editor would probably suffice. If you have many efforts to enter, you may want to consider using the bulk upload feature.
- Either way, if you have plans to associate with your efforts, we would recommend creating plan records before adding effort records. You'll see why that is shortly.

Step 4: Required Fields

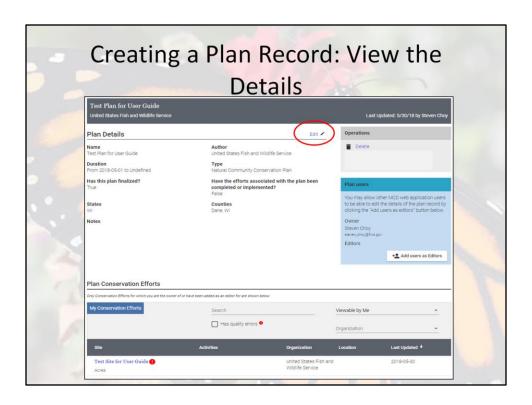- ([Required Fields Flowchart](#))

- The next step is to figure out what fields will be required. The easiest way to do so is using the Required Fields Flow Chart I mentioned earlier. Simply start on the left hand side, and follow the boxes until you determine which scenario you fit under. Click on the scenario box and you will be taken to table that shows the minimally required fields.
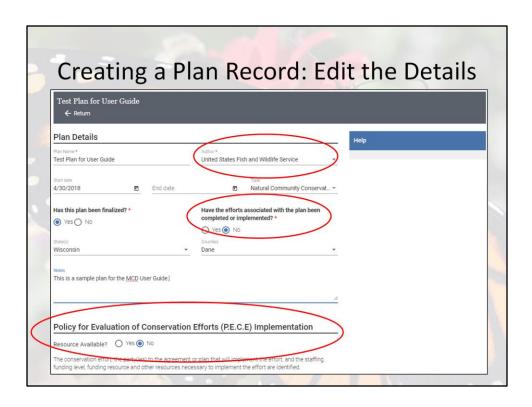
Step 5: Creating a Plan Record

- We are now ready to start creating plan and effort records using the MCD web application.
- Starting with plans, we would begin by making sure we are on the Plans Homepage and clicking on "New Plan."
- Recall that you do not need to have a plan nor is it required to have your conservation effort associated with a plan
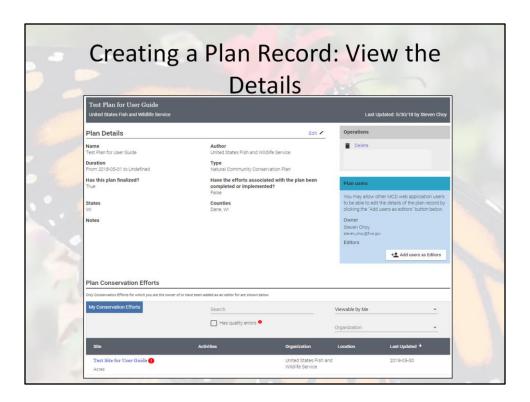
Creating a Plan Record: Provide a Name

- You will be prompted to create a name for the plan. Click "Create Plan" to create the record and be taken to the View page for the newly created plan.

Creating a Plan Record: View the Details

- Upon creating the plan record, all fields except the name will be blank and you should not have any efforts associated with the plan. To edit the plan details, click on the "Edit" button.

Creating a Plan Record: Edit the Details

- Fill in the required fields marked by a red asterisk and fill in the non-required fields at your discretion; the non-required fields may or may not apply to you.
- If you cannot find your organization in the Author drop down field, please email FW3_monarchconservation@fws.gov and we will add it.
- Also note that if your answer to "Have the efforts associated with the plan been completed or implemented" is "No", you will have to answer the Policy for Evaluating Conservation Efforts (or PECE Policy) implementation questions. If you were to answer "Yes" to that question, you would see that the PECE questions are removed from the form. The PECE questions are intended to help us gauge the certainty with which the efforts associated with the plan will get implemented.
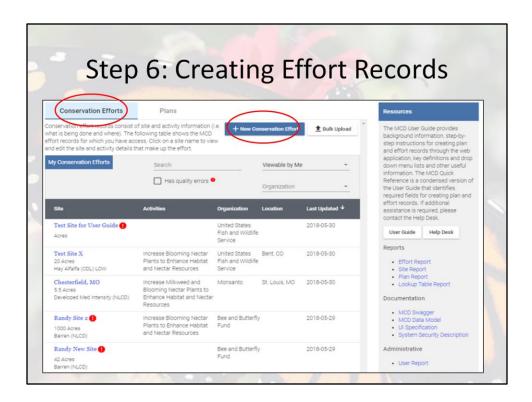
Creating a Plan Record: View the Details

- Clicking the "Save" button at the bottom of the page will save your information and return you to the plan View page. You should now be able to see the fields populated with your newly added information.
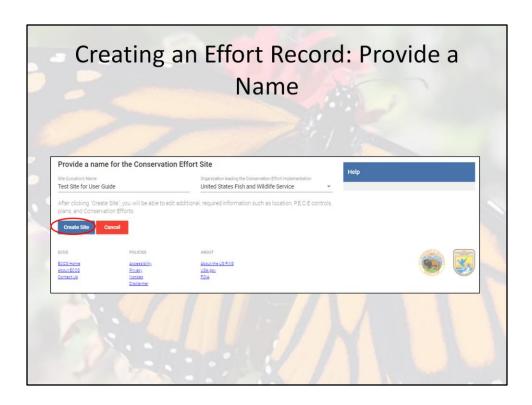
- Creating an effort record is a bit more involved, but the concept is the same. You can see here that efforts have the same hub and spoke model as plans.
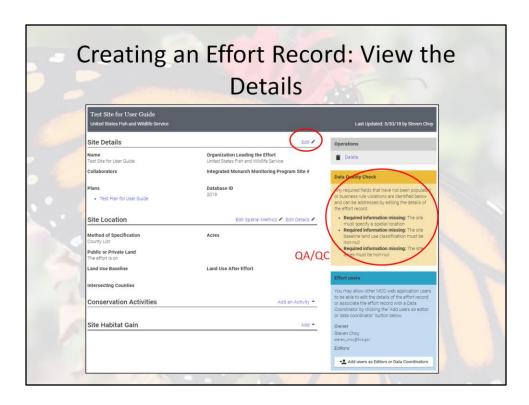
Step 6: Creating Effort Records

- However, you can see that each effort record has 4 "spokes" or editable sections as opposed to the 1 spoke for plans, including:
    - Site Details
    - Site Location
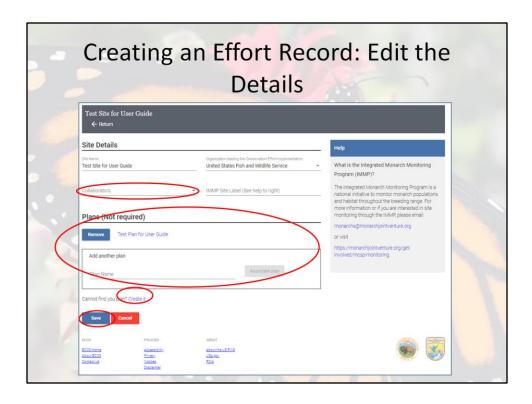   - Conservation activities, and
    - Site Habitat Gain

- First make sure you are on the Conservation Efforts Homepage by selecting the Conservation Efforts tab.
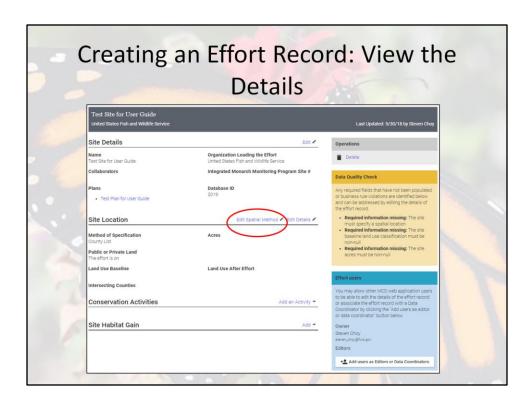- Click the "New Conservation Effort" button.

Creating an Effort Record: Provide a Name

- You will be prompted to create a name for the site and select the organization leading implementation of the conservation effort. As with the plan Author field, if you do not see your organization, please email FW3_monarchconservation@fws.gov.
- Click "Create Site" to be taken to the View page for the newly created conservation effort record.

Creating an Effort Record: View the Details

- I wanted to point out the yellow QA/QC box I mentioned before, this is what it looks like and you can see that it is alerting me to missing required fields.
- To address these data quality issues, we will start editing the Site Details by clicking on the "Edit" button next to the section header.
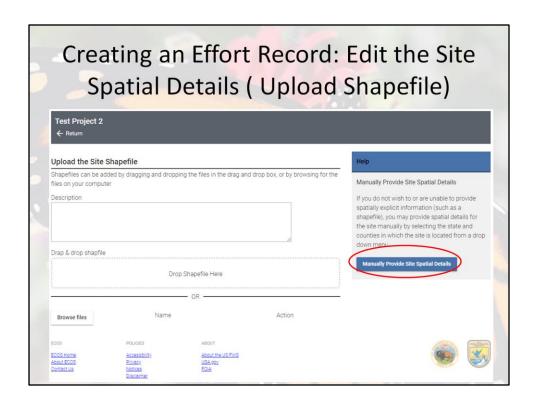
Creating an Effort Record: Edit the Details

- As with plan records, fill out the required fields marked with red asterisks and populate the other fields to the best of your ability if they apply to you. In this case the two required fields (Site Name and Lead Organization) are required but were populated during the initial effort record creation step.
- If you add organizations as collaborators, any user associated with that organization will be allowed to view (but not edit) the details of your effort record.
- Also, this screen grab illustrates why it is beneficial to provide plan information first. If you would like to associate a plan with your effort and it is already in the database, you can simply search for the plan using the search box, selecting the plan and clicking "Associate plan."
- If the plan is not already in the database, you can click the "Create it" button which will prompt you to provide a plan name. Submit the plan name, and then you'll have to search for the plan name you just submitted and click "Associate plan."
- Also, be sure to provide plan details when you're finished creating the effort record.
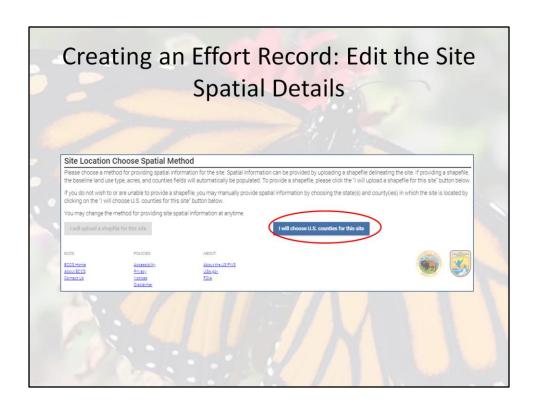- Click "Save" to save your information and return to the View page.

Creating an Effort Record: View the Details

- The next step is to provide spatial information about the site. Start by clicking on the "Edit Spatial Method" button.

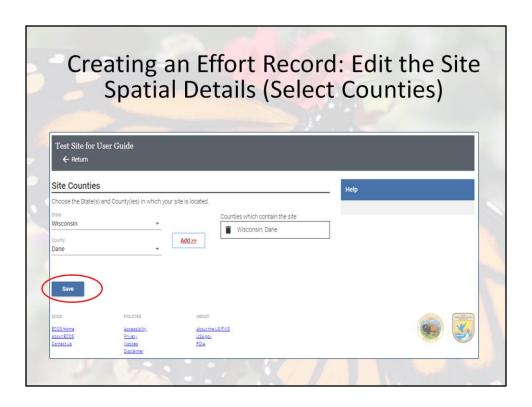Creating an Effort Record: Edit the Site Spatial Details

- You'll be given two options for providing site spatial information:
  - You can provide a shapefile, or
  - You can manually choose the State and County in which your site is located
- As I mentioned during the updates, the upload a shapefile feature is not working at the moment but I will go through the process now and send an email blast to all users who would like to use this feature when it is up and running.
- Click on the "I will upload a shapefile for the site" button to provide a shapefile.

Creating an Effort Record: Edit the Site Spatial Details (Upload Shapefile)

- You can either drag and drop the shapefile delineating the site or browse for the shapefile in your file explorer to upload.
- Only you and users you have assigned as editors or Data Coordinators will have access to the shapefile if you provide one. If you do provide a shapefile, the site acreage and counties will automatically be populated.
- At any point, you can delete your shapefile to upload a new one or delete and choose to provide your site spatial location by manually selecting counties by clicking on the "Manually Provide Site Spatial Details" button from the Edit site spatial page or
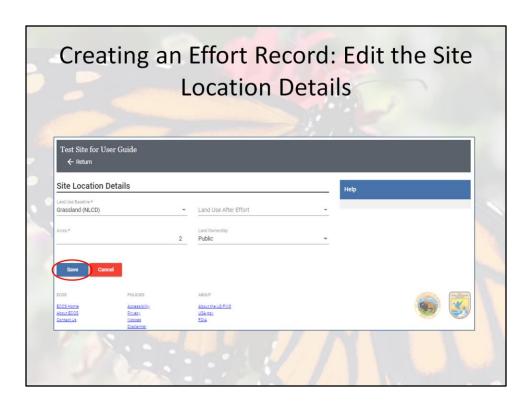
Creating an Effort Record: Edit the Site Spatial Details

- By clicking "I will choose U.S. counties for this site when initially clicking on the "Edit Spatial Method" button
- If you choose to manually provide site spatial details, you can do so by choosing the state and county in which the site is located.
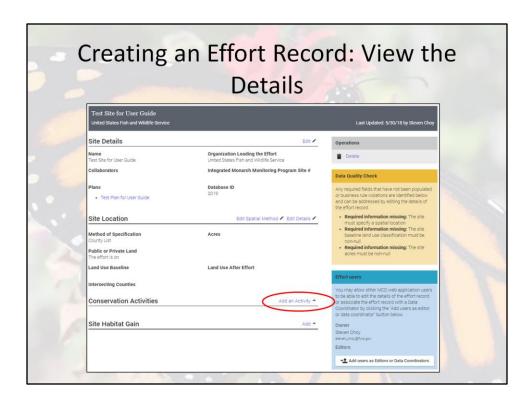
Creating an Effort Record: Edit the Site Spatial Details (Select Counties)

- First choose the state or states, then choose the county.
- If dealing with multiple counties, they have to be added one at a time, however there is an add "All" counties option.
- Click the "Save" button to save your information and return to the View page

Creating an Effort Record: View the Details

- Finish providing site location information by clicking on "Edit Details" next to the Site Location section header

Creating an Effort Record: Edit the Site Location Details

- Here you can indicate the baseline land use and acres of site which you can see are required, and you can also provide information about the post effort land use if applicable and land ownership if you'd like.
- The land use type fields are drop down menus and a list of land use types and their definitions can be found in the User Guide, Quick Reference, or Land Use and Activities documents all available on the MCD website.
- As I mentioned before, if there are many land use types at the site or the dominant land use cannot be reasonably determined, please use your best judgement or you may also select "Unspecified."
- Click the "Save" button to save your information and return to the View page.

- You can add conservation activities to the effort record by clicking on the "Add an Activity" button.

- Again, populate the required information and fill-in the non-required fields if you can.
- Similar to the land use types, you can find a list of all activity and sub-activity types and their definitions in the User Guide, Quick Reference, or Land Use and Activities documents on the MCD website.
- Note that if your effort is associated with a plan and your activity status is "Not Yet Implemented", "Implemented", or "Completed for less than 3 years" you will be required to answer the PECE effectiveness question. Similar to the PECE implementation questions for plans, the PECE effectiveness questions will be hidden on this from if your activity status is "Completed for more than 3 years", or if your effort is not associated with a plan, both cases in which PECE does not apply.
- The PECE questions at the effort level are intended to help us determine if future efforts will be effective.
- Click the "Save" button to save your information and return to the View page.

- The last step to completing an effort record is providing habitat gain information by clicking on the "Add" button.

- These are very detailed metrics that are shared with the Monarch Joint Venture's Integrated Monarch Monitoring Program and the Environmental Defense Fund's Habitat Quality Tool.
- The only required field for this form is baseline and post effort Milkweed Density.
- If you are unable to provide accurate field data for milkweed density at your site, please refer to the Land Use and Activities table, User Guide, or Quick Reference (all available on the MCD website) for the "All Hands on Deck" Publication estimates for baseline and potential and amended milkweed density.
- For example, looking at the table, if the baseline land use was Grassland, you would look at the Estimated Baseline Milkweed Density column and note that the baseline milkweed density is 3.09 stems per acre which you would then enter as your baseline milkweed density.
- If the land use after implementation of the effort did not change, you would look at the Potential/Amended Milkweed Density column for Grassland and use 40 stems per acre as the post effort milkweed density.
- If the land use after implementation did change to Grassland PADUS Protected for example, then you would find the potential or amended milkweed density for the new land use and use 250 stems per acre as your post effort milkweed density.
- Click the "Save" button to save your information and return to the View

page; you have just completed the data entry process

Creating an Effort Record: Data Coordinator Approval

- For those of you who would like to assign Data Coordinators, make sure you have coordinated and communicated with the user you would like to assign as a Data Coordinator. Recall that you may assign any registered user as your Data Coordinator. You can assign Data Coordinators by clicking on the "Add users as Editors or Data Coordinators" button from the View page of an effort.
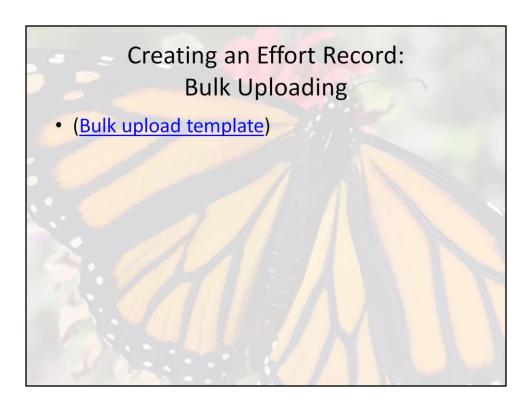
Creating an Effort Record: Data Coordinator Approval

- For those of you who will be a Data Coordinator, after you have coordinated with the user or users who have assigned you as a data coordinator, you can search or filter for those efforts on your Conservation Efforts Homepage.

- Access the View page of the efforts that need your finalization or approval, and click on the "Edit" button next to the individual conservation activities.

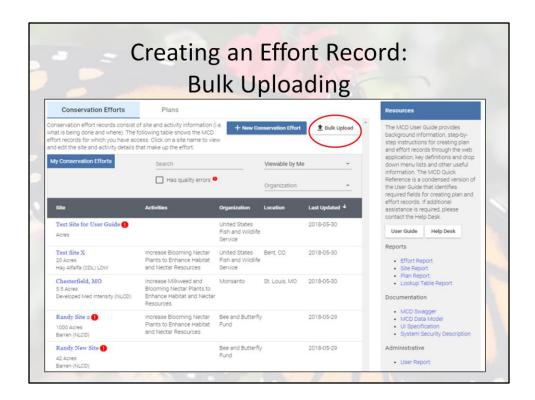Creating an Effort Record: Data Coordinator Approval

- Once you are in the edit page for the conservation activity, simply click on the "Set to finalize" button in the operations box. This can be undone and re-done as necessary. As a reminder this is not required for your effort record to be considered complete – this just tells FWS data analysts that the record has gone through some level of QA/QC.

Creating an Effort Record:
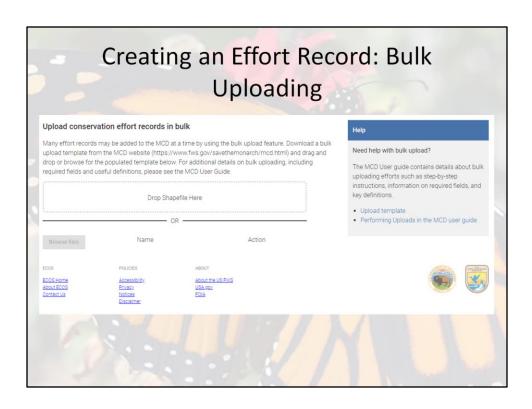Bulk Uploading

- ([Bulk upload template](#))

- Now we know how to create plan and effort records through the single record editor of the web application.
- Next we will talk briefly about the bulk upload process.
- The first step is to go to the MCD web site and download the template of your choice: either an excel template which is available now, or file geodatabase template when it becomes available.
- If you have spatially explicit information (i.e. shapefiles), we would recommend using the file geodatabase template. If you do not have spatially explicit information, the excel template would probably be easiest.
- As with the single record editor, populate the required fields and any non-required fields to the best of your ability. Required fields are highlighted. Please refer to the MCD User Guide or MCD Quick Reference for field definitions and drop down menu options; for drop down fields, template entries must appear exactly as they do in the various guidance materials.
- For fields where multiple entries can be provided (counties for example), please separate entries using a semi-colon.
- For the Lead Organization, Collaborator and Implementing Organization fields, we will either match what you provide with the organizations in our library or create a new organization for you.
- If you are going to associate the efforts with a plan, please enter the name of the plan exactly as it appears in the MCD if it already exists in the MCD. If the plan is not already in the MCD, we will create the plan record for you,
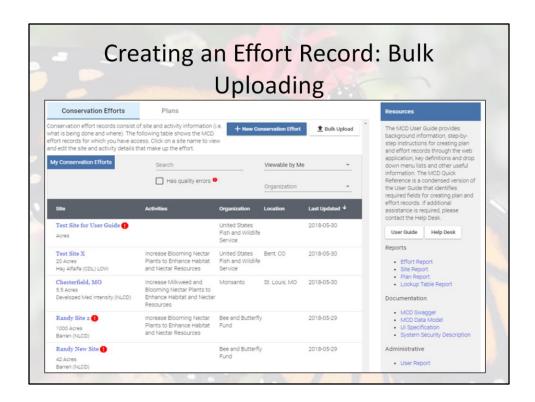
but please be sure to provide plan details at some point.

Creating an Effort Record: Bulk Uploading

- Once the template is populated, go to the Conservation Efforts Homepage and click the "Bulk Upload" button.

Creating an Effort Record: Bulk Uploading

- You may either drag and drop the completed template into the box or browse for the file using windows explorer.

Creating an Effort Record: Bulk Uploading

- Lastly, go back to the Conservation Efforts Homepage and make sure that your records have been uploaded successfully.

THANKS!

- Contact us any time at:
  FW3_monarchconservation@fws.gov

- Visit us any time at:
  https://www.fws.gov/savethemonarch/mcd.html

- Thanks again for your interest in the Monarch Conservation Database. We greatly appreciate your taking the time to learn how to use the web application and provide critical data about your conservation efforts. Your data will help us better assess future conditions for monarchs and help us make an informed decision.
- As always, please contact us at any time at fw3_monarchconservation@fws.gov and visit the MCD web page at https://www.fws.gov/savethemonarch/mcd.html for important resources and updates.